

MBON Data Management and Cyberinfrastructure Working Group (MBON DMAC WG)

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Friday, October 22, 2021

2021 MBON All-Hands



Purpose

WG purpose:

To implement interoperability, data archival, and publication standards for marine and coastal biodiversity observations.

Convergence on best practices for:

- Data formatting (from collection to application)
- Data interoperability
- Data archive
- Interconnectedness of databases

Accomplishments

(ongoing)

- inventory categories /sources of data ([Google Form](#))
- identify formatting and interoperability strategies
- trace paths for database integration
- Document management pipelines
- Coordinate with other groups (ESIP, OBIS, etc)

What have we done so far?

MBON dataset registration

Please register each individual dataset that has started collecting observations.

Scope of registration:
This registration form collects information about datasets that have started collecting data. We will use the information collected here to evaluate where each dataset is along the data management path presented below. This information will also allow for strategic planning and prioritization of datasets for aligning to Darwin Core, submitting to NCEI for long-term archival, and presenting on the MBON data portal.

Standardizing Marine Biological Data

Preface

1 Introduction

- 1.1 Data Structures
- 1.2 Ontologies
- 1.3 Controlled Vocabularies
- 1.4 Technologies
- 1.5 Notes on Integrating OBIS, D...
- 1.6 Metadata
- 1.7 Data QC

2 Applications

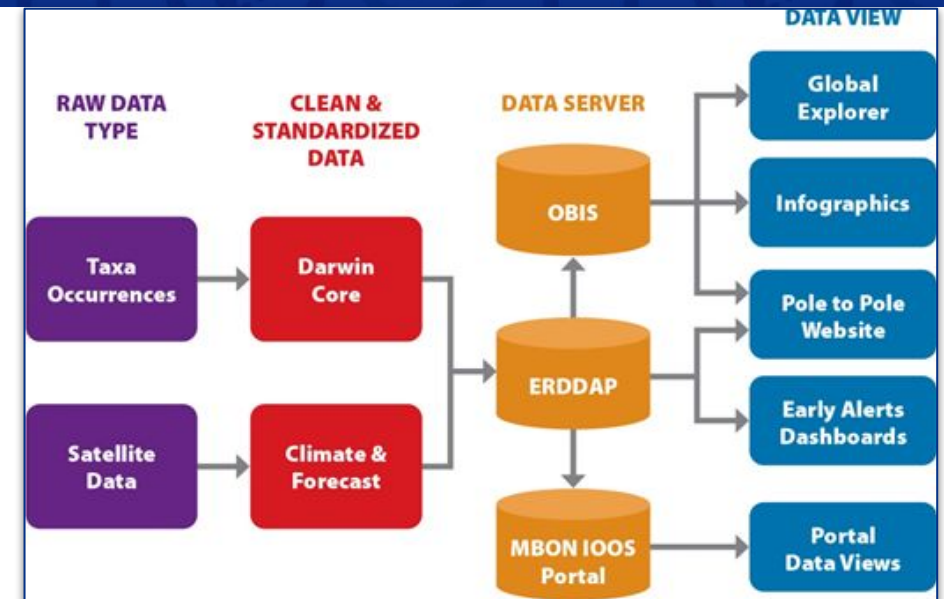
- 2.1 Salmon Ocean Ecology Data
- 2.2 Example Two

3 Final Words

References

Chapter 1 Introduction

The world of standardizing marine biological data can seem complex for the naive oceanographer, biologist, scientist, or programmer. Transforming and integrating data is about combining the right standards for your dataset with interoperability with other data types. For example, interoperating fish biology measurements with climate variables. There are a few concepts necessary to make this possible such as standard data structures, controlled vocabularies and knowledge representations, along with metadata standards to facilitate data discovery. This permit the inclusion of more data and broader access to better ecosystem based models. Many scientific data handling practices are currently being reshaped.



Benson et al., 2021 DOI: [10.5670/oceanog.2021.220](https://doi.org/10.5670/oceanog.2021.220)

IOOS Integrated Ocean Observing System

MBON Portal Documentation Home

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MBON Portal Documentation

Summary: This documentation describes the Marine Biodiversity Observation Network (MBON) portal and its underlying functionality.

Edit me

Introduction

This portal provides access to and interactive visualizations of data associated with the [Marine Biodiversity Observation Network \(MBON\)](#). The portal includes real-time, delayed-mode, and historical data for in situ and remotely-sensed physical, chemical, and biological observations. This observation data is focused on organisms from microbes to whales, including measures of biodiversity (e.g. presence, abundance), productivity, genomics, phenology, and other relevant ecological process measurements or indices. Also featured are habitat characterization and habitat diversity measures, including satellite data and added-value data derived from satellite observations, and neural network model results, such as biogeographical

Next Steps

- Connecting with the users
- Connecting MBON working groups/projects
 - Bring them to the MBON DMAC working group!

